

7. Universal Service Data Request.

Request:

(1) Loops. For the year ending December 31, 1996, indicate how many of each of the following type of loops there are for each wire center in each of your study areas:

- (a) Switched working loops
  - (i) Residential
  - (ii) Single-line business
  - (iii) Multi-line business
- (b) Non-switched working loops
- (c) Non-working loops
- (d) Non-revenue loops (please explain why these loops do not generate revenue)

Please note that:

- Working loops include loops used for all services: message and special, revenue and non-revenue.
- Non-working loops include defective loops, loops reserved for some future activity, and loops with a pending connect status.
- Switched loops should only be counted as part of the wire centers in which they are switched.
- For non-switched services, count the actual number of subscriber loops used to provide the service, not the voice frequency equivalent. For example, DS1 service provided over two copper pairs would be counted as two subscriber loops.
- Foreign exchange lines or trunks should be counted as non-switched in the wire center where the customer and subscriber loop is located.
- For switched loops served via a concentrator or carrier system, count the actual number of customer lines served, not the transmission channels at the wire center.

Response: See Section 1, following.

Request:

(2) Loop length studies. Provide the most recent loop length study conducted by or for your company for each of your study areas. List loop lengths, and for each loop length, specify how many loops are that length. Include all statistical studies used to support that loop length study and a glossary defining all terms not commonly used by other LECs. Describe how

the study was performed. Indicate whether the study was performed using a stratified sample, and whether the stratification was based on density cells, study areas, or wire centers. Specifically indicate whether the study includes both working and non-working loops or only working loops. List any other modifications or assumptions made in obtaining your loop sample. (See definition of working and non-working loops provided in Question 1.)

Response: See Section 2, following.

Request:

(3) Subscriber line usage studies. Provide the most recent subscriber line usage study or equivalent performed by or for your company for each of your study areas. Indicate the dates over which the study was performed, the number of lines sampled by service category and the wire centers included in the study. Include a glossary defining all terms not commonly used by other incumbent LECs.

Response: See Section 3, following.

Request:

(4) Basic residential service offerings. For each basic residential service plan that includes a per-minute or per-call charge, provide the number of calls or minutes that are not charged on a per-call or per-minute basis, if any, that are included as part of the service plan.

Response: See Section 4, following.

(5) Apportionment of cable costs. Indicate the percentage attributable to buried cable (Account 2423), underground cable (Account 2422), and aerial cable (Account 2421) for each of the following: (a) gross investment in distribution plant; (b) gross investment in feeder plant; (c) distribution loop length (in miles or kilometers); and (d) feeder loop length (in miles or kilometers). Please provide this information on a wire center basis. If it is not available on a wire center basis, provide the information on a study area basis.

Response: See Section 5, following.

Request:

(6) Installation cost data for cable facilities. Provide all data on the cost of installing cable facilities that have been submitted to a federal or state commission in 1995 or 1996. Include a glossary defining all terms not commonly used by other incumbent LECs.

Response: See Section 6, following.

Request:

(7) Subscriber utilization studies. Provide the most recent subscriber cable utilization study performed by or for your company for each of your study areas and provide the information by wire center. Separately identify utilization by feeder and by distribution. Please define utilization as the ratio of working loops (as defined in Question 1 above) to total loops. Include a glossary defining all terms not commonly used by other LECs.

Response: See Section 7, following.

Request:

(8) Structure-sharing percentages. What percent of the structures that support your outside plant are shared with other companies? Provide the sharing percentage, by study area, for each of the following categories: (a) poles; (b) conduits; and (c) trenches. The sharing percentage is the proportion of investment that is assigned to the telephone company. Provide the information separately for interoffice (trunk) cable and subscriber cable.

Response: See Section 8, following.

Request:

(9) Multi-line residential customers. How many of your residential customers are multi-line customers, where multi-line means multiple communications channels and not multiple telephone numbers? Provide this line count on a study area and a wire center basis. Indicate the number of these channels that are served through a basic-rate ISDN service.

See Section 9, following.

Request:

(10) Poles. Provide the current cost of a 40-foot class 4 treated southern pine pole and the average cost of installing such a pole in 1996.

Response: See Section 10, following.

Request:

(11) Detailed continuing property records.

- (a) For the year ending December 31, 1995, provide the detailed continuing property record (DCPR) balance for USOA Account 2212 (digital electronic switching) for each wire center and the number of switched lines (not line numbers) working from the digital switches in that wire center.
- (b) For the above account, summarize the material cost and the installed cost by wire center and by all characters of the equipment category code (EQCAT or ECN) used in your DCPR records. Provide translation tables for the EQCAT or ECN codes and for the location codes used in the account 2212 DCPR records. Provide the DCPR summaries in ASCII files on 3 1/2" floppy disks, DC2120 magnetic tape cartridges, Iomega ZIP disks, or Iomega JAZ disks for use on a PC platform.

Response: See Section 11, following.

Request:

(12) Digital switches. For all digital switches purchased in 1995 and 1996, provide the material and installed cost of each switch and the number of lines served by each switch at the end of its first twelve months in service. If a switch has not been in service for twelve months, state the length of service and the number of lines it serves at present.

Response: See Section 12, following.

Request:

- (13) Contracts with switching manufacturers. For every switching manufacturer with which you currently have a contract:
- (a) Provide a copy of that contract. Indicate if you consider the contract proprietary, and follow the instructions in para. 8 for filing confidential information.
  - (b) If not clearly defined in the contract, please provide definitions of the following terms as they were used in the contract: (i) new switch; (ii) growth to a new switch; (iii) growth to an embedded switch; (iv) remote switch; and (v) remote switching module.
  - (c) Does the contract price include the removal of the existing switch(es)?
  - (d) What time period does the contract cover?
  - (e) How many lines are you committed to install under the contract, if any?

Response: See Section 13, following.

Request:

- (14) Digital line carrier devices. For all digital line carrier devices purchased in 1995 and 1996, provide the following:
- (a) The material and installation cost of each device. (Provide the cost of common equipment separately from the cost of per-line equipment.)
  - (b) The number of lines served by each device at the end of its first twelve months in service.

Response: See Section 14, following.

Request:

- (15) Drop lines. With regard to drop lines that you install for residential customers:
- (a) Describe the number of copper pairs that you normally install per dwelling unit in both single family and multi-family dwellings.
  - (b) If multi-family dwelling units are served by fiber, provide the number of DS0 transmission channels per dwelling unit.
  - (c) If you install a different number of pairs depending on whether the drop is aerial or buried, indicate the difference in number.

Response: See Section 15, following.

Request:

- (16) Maintenance expenses. With regard to maintenance expenses for switches, circuit equipment, and cable and wire facilities:
- (a) Provide the most recent estimate of these expenses as incorporated into a forward-looking or economic cost study for each of your study areas that was filed with a state commission or the Federal Communications Commission. Indicate the date and docket number of each submission, and the commission(s) to which it was submitted.
  - (b) Explain the method used to determine these expenses and provide a copy of the calculations that support the expense estimate.
  - (c) Provide evidence, if possible, of any differences in maintenance expenses between fiber and copper cable.
  - (d) Provide evidence, if possible, of any differences in maintenance expenses among aerial, underground, and buried cable.

Response: See Section 16, following.

Request:

- (17) Riser cable.
- (a) Do you currently install riser cable in multi-unit residential housing or commercial buildings?
  - (b) If so, under what conditions do you consider this installed cable to be part of the regulated total plant in service?
  - (c) What percentage of the installed riser cable do you include in regulated total plant in service?

Response: See Section 17, following.

Request:

(18) Residential, single-line business, and multi-line business customers. For residential, single-line business, and multi-line business customers for June 1996, provide the following for each study area:

- (a) The total local service revenue and the number of customers. Total local service revenue includes flat monthly charges, local usage charges, taxes, extended area service charges (mandatory and optional), local mileage and zone charges, local information charges, federal and state subscriber line charges, other mandatory surcharges, and optional services, such as touch tone, call waiting, and call forwarding.
- (b) The sum of taxes and 911 surcharges.
- (c) The total of your billings for toll service for which you provided the toll service.

Request (18) (Cont.)

- (d) The total of your billings for which you billed for toll services provided by another carrier.
- (e) For multi-line residential customers, where multi-line means multiple communications channels and not multiple telephone numbers, provide the revenue generated by the purchase of the additional lines.

Response: See Section 18, following.

Request:

(19) Miles served by wire center. Provide the number of square miles served by each wire center.

Response: See Section 19, following.

Request:

(20) Cost of land and buildings. For each wire center, provide the historical cost of the land and buildings. Indicate the number of switches in each wire center.

Response: See Section 20, following.

Request:

(21) Contracts with digital line carrier manufacturers. For every digital line carrier manufacturer with which you currently have a contract:

(a) Provide a copy of that contract. Indicate if you consider the contract proprietary, and follow the instructions in para. 8 for filing confidential information.

(b) What time period does the contract cover?

Response: See Section 21, following.



## Section 1

### Loops

The information requested has been provided in Excel workbooks. Summary level data, where appropriate, is contained in file bstr\_mn.xls for each study area. Wire center level data is contained in files sbfl\_1.xls, sbga\_1.xls, sbnc\_1.xls, sbsc\_1.xls, scal\_1.xls, scky\_1.xls, scla\_1.xls, scms\_1.xls, and sctn\_1.xls. Wire center level data is considered confidential as noted in the "Designation of Confidential Information" statement. A paper copy of the workbooks is also provided, with the file name appearing in the lower right hand corner of the page.

## Section 2

### Loop length studies

Following is an explanation of BST loop studies:

A statistically valid random sample of residence and business loops was selected. Then using BellSouth Outside Plant Engineering Records, a circuit layout is determined for each loop in the sample. The layout or make-up includes each item of plant from the central office to the customer premises and represent working loops. The type of information included is cable type (aerial, buried, underground, copper, fiber, etc.), cable size, cable gauge, cable length, bridge tap or end section, cross connect box/terminal size, feeder or distribution, etc.. Bridged tap or end section is any cable length that is not in the resistive path between the customer location and the central office. End section is the cable length beyond the location where a cable pair is served and the location where a cable pair ends.

The loop survey took place in stages beginning April of 1995 with Step 1 and ending in November of 1995 with Step 6 below. Explanations of each step follow:

- 1) Determine sample size through statistical reference -

	<u>Sample Size</u>		<u>Universe 4/95</u>			
	<u>Residence</u>	<u>Business</u>	<u>Lines</u>		<u>% Universe</u>	
			<u>Res</u>	<u>Bus</u>	<u>Res</u>	<u>Bus</u>
AL	287	293	1,259,227	272,171	82.23%	17.77%
FL	174	175	3,778,718	1,125,982	77.10%	22.90%
GA	200	200	2,237,610	632,422	77.96%	22.04%
KY	250	250	800,217	177,958	81.80%	18.20%
LA	248	249	1,492,912	355,802	80.75%	19.25%
MS	300	298	834,208	186,778	81.71%	18.29%
NC	199	199	1,365,254	382,489	78.00%	22.00%
SC	247	245	896,751	194,158	82.20%	17.80%
TN	246	244	1,685,485	421,676	79.99%	20.01%

- 2) Identify universe using Customer Record Information System (CRIS) through appropriate USOCs by class of service - The universe includes residence and business lines. The universe of business lines consists of voice grade business access lines (small and large).
- 3) Randomly select Circuit IDs from universe (CRIS) based on sample size - The CRIS database is ordered by telephone number and was provided prior to the sampling process in that manner. Samples were pulled based on relevant USOC (residence and business) considering every nth working loop with a random start.

## Section 2

- 4) Match Circuit ID with the Loop Maintenance Operations System (LMOS) data (add wire center, cable and pair and serving address) - Prior to accessing field records, additional information such as wire center, cross connect box and terminal address had to be added to the circuit ID information. The LMOS database was used to populate the information.
- 5) Access field records and manually populate loop make-up form - Loop design drawings were made for each loop in the sample.
- 6) Load loop make-up data into database - The drawings were entered into a database which became the loop make-up database contained in the loop model. The loop make-up includes class of service, size, gauge, cable length, cross connect box/terminal size, field reporting code, and description. The loop make-up data was again verified by employees knowledgeable in telephone plant engineering and sent back to the Network Planning Organization for verification prior to input into the database.
- 7) Verification of data -
  - Prior to input:
    - Verify that all surveys are received and accounted for
    - Check for duplicate surveys (paper and mechanized)
    - Check for and request missing surveys
    - Develop log for recording survey input data (date, data entered, error report)
  - During Input to Access Model (built in checks):
    - Automatic calculation of loop miles checked with hand-calculated mileage
    - If mileage is off, review each input and cable segment length
    - Only valid sizes, gauges, descriptions, and field reporting codes are allowed
  - After Input to Access Model:
    - Record loop surveys input (date and data entered)
    - Send questions/errors back to field
    - Correct questions/errors
    - Review Access loop makeup tables for item class and description quality
  - Loop Model Investment Checks and Balances:
    - Mechanized loops are checked for correct cable size and description
    - Access database inputs are combined into one large Paradox database
    - Unfamiliar cable sizes and descriptions are reviewed and edited
    - Duplicate or odd data is reviewed and checked against original inputs

## Section 2

All samples were statistically verified through an independent analysis. The files associated with the most recent statistical analysis are attached and provided on diskette. The files are in EXCEL format and contain the following fields:

State  
Loop Number (from Sample)  
Class of Service  
Circuit ID  
Loop Length (including Bridged Tap)  
Loop Investment (cable, electronics and cross-

box/terminals)

The Excel workbook file bsloop1.xls contains sheets associated with each state and their associated vintage as listed below:

<u>State</u>	<u>Sheet Name</u>	<u>Study Date</u>
Alabama	WAL2W	7/97
Florida	FLSTATS	6/96
Georgia	1GSTAT11	6/97
Kentucky	WKY2W	7/97
Louisiana	WLA2W	7/97
Mississippi	WMS2W	7/97
North Carolina	NCSTAT	9/96
South Carolina	WSC2W	7/97
Tennessee	TSTAT2W	7/97

A paper copy of these files is also being provided, with the file name shown in the lower right hand corner of each page.

### Section 3

#### Subscriber line usage studies

Summary level data is provided in an Excel workbook named bsslus.xls. Individual sheets in this workbook file shows the current data available for study areas in BST. Following is a glossary of terms:

#### Glossary:

**Account**            Earning account number, usually based in a specific geographic location.

**Categories**       Refers to geographic categories.

Accounts are categorized according to two classifications, (1) Local Calling Area Size and (2) Exchange Size.

Local Calling Areas are specified as follows:

	Number of Access Lines
Rural	< 9000
Large Rural	9000 - 25000
Non-Metro	25000 – 50000
Metro	50000 – 178000
Major Metro	> 178000

Exchanges are specified as follows:

	Number of Access Line
Small	< 5000
Medium	5000 – 25000
Large	25000 – 50000
Extra Large	> 50000

**Lines**            Refers to access lines, PBX trunk, or Network Access Registers depending on SLUS Class

**Minutes**        Refers to conversation minutes

**Toll**            Refers to intraLATA Toll

**SLUS Class**     Refers to groupings of basic class of service, e.g. Residence Flat Rate

A paper copy of these files is also being provided, with the workbook and sheet name in the lower right hand corner of each page.



#### Section 4

##### Basic residential service offerings

The number of calls or minutes that are not charged on a per-call or per-minute basis, if any, that are included as part of the basic service plan are as follows:

##### ALABAMA

Free Calls (no.)	N/A
Free Minutes (no.)	N/A

##### FLORIDA (Message Rate Service)

Free Calls (no.)	30 calls to exchanges in the Extended Area Service (EAS) area
Free Minutes (no.)	N/A

##### KENTUCKY

Free Calls (no.)	N/A
Free Minutes (no.)	N/A

##### GEORGIA (GCC - Georgia Community Calling)

Free Calls (no.)	30 calls to exchanges in the Basic Service Area
Free Minutes (no.)	N/A

##### LOUISIANA

Free Calls (no.)	N/A
Free Minutes (no.)	N/A

##### MISSISSIPPI

Free Calls (no.)	N/A
Free Minutes (no.)	N/A

##### NORTH CAROLINA

Free Calls (no.)	N/A
Free Minutes (no.)	N/A

##### SOUTH CAROLINA

Free Calls (no.)	N/A
Free Minutes (no.)	N/A

##### TENNESSEE (Message Rate Service)

Free Calls (no.)	30 calls to exchanges in the Basic Local Calling Area
Free Minutes (no.)	N/A

Assumptions used in response include:

Grandfathered plans were excluded.

Only statewide plans were included.

All measured/message plans typically do not apply usage charges for calls to the Company Business Office, Repair Service, Directory Assistance, 911 or 976.

Section 6

Apportionment of cable costs

Apportionment of cable costs is estimated from BST's loop study data. An Excel workbook file named bsloop2.xls contains the requested information by study area. A paper copy of the file is also being provided, with the file name displayed in the lower right hand corner.



## Section 6

### Installation cost data for cable facilities

Installation cost for cable facilities is captured in BST in-plant loading factors. Following is a brief explanation:

In Plant Loadings add engineering and installation labor and miscellaneous equipment to the material price and/or vendor installed Price; that is, the In Plant Loading converts the material price to an installed investment. The installed investment is the dollar amount that is recorded in the capital accounts. There are four types of in plant loadings:

- 1) Material Loading, which is applied to a material price,
- 2) Telco Loading, which is applied to the vendor installed investment,
- 3) Plug-In Loading, which is applied to the deferrable plug-in and common plug-in material prices, and
- 4) Hardwired Loading, which is applied to the hardwired portion of an equipment material price.

An electronic copy of BST's In-Plant Loadings for outside plant is included in an Excel workbook file named bsload.xls, sheet INPLT OSP. A paper copy of this file is also being provided, with the file and sheet name appearing in the lower right hand corner.

Section 7

Subscriber utilization studies

Utilization percentages for feeder and distribution plant will be provided on or before September 24, 1997, pursuant to the FCC's order released August 14, 1997 in this proceeding.

Section 8

Structure sharing percentages

The following information shows data concerning structure sharing. Information is not available for interoffice and subscriber plant structures separately.

<b>POLES</b>			
	<b>BST on Power Poles</b>	<b>BST Owned Poles</b>	<b>Assigned to Telco</b>
<b>AL</b>	683,492	405,974	37.26%
<b>FL</b>	667,423	449,979	40.27%
<b>GA</b>	1,035,253	371,811	26.42%
<b>KY</b>	342,172	315,453	47.97%
<b>LA</b>	446,095	296,650	39.94%
<b>MS</b>	709,804	280,897	28.35%
<b>NC</b>	439,000	248,291	36.13%
<b>SC</b>	219,000	144,886	39.82%
<b>TN</b>	802,919	435,078	35.14%
<b>TOTAL</b>	5,345,158	2,949,019	35.56%

<b>Trenching</b>		
	<b>Shared</b>	<b>Assigned to Telco</b>
<b>AL</b>	0%	100%
<b>FL</b>	3%	97%
<b>GA</b>	28%	72%
<b>KY</b>	35%	65%
<b>LA</b>	0%	100%
<b>MS</b>	0%	100%
<b>NC</b>	2%	98%
<b>SC</b>	1%	99%
<b>TN</b>	5%	95%

Section 8

<div style="border: 1px solid black; padding: 2px; display: inline-block;">Conduit</div>				
	<b>Footage</b>	<b>Miles of Duct</b>	<b>Total Duct Feet</b>	
	<b>Leased</b>	<b>In-Plant as of</b>	<b>In-Plant as of</b>	<b>Shared</b>
		<b>Year End 1996</b>	<b>Year End 1996</b>	
<b>AL</b>	-	9508	50,202,240	0.0000%
<b>FL</b>	129,754	35933	189,726,240	0.0684%
<b>GA</b>	34,636	23606	124,639,680	0.0278%
<b>KY</b>	26,004	6578	34,731,840	0.0749%
<b>LA</b>	464	13798	72,853,440	0.0006%
<b>MS</b>	-	3947	20,840,160	0.0000%
<b>NC</b>	105,759	11147	58,856,160	0.1797%
<b>SC</b>	80,375	9227	48,718,560	0.1650%
<b>TN</b>	24,218	12341	65,160,480	0.0372%

Section 9

Multi-line residential customers

The number of multi-line residential customers is shown by wire center in Excel workbook files sbfl\_1.xls, sbga\_1.xls, sbnc\_1.xls, sbnc\_1.xls, scal\_1.xls, scky\_1.xls, scla\_1.xls, scms\_1.xls, and sctn\_1.xls. Summary level data for each study area is shown in file bstr\_mn.xls.

Section 10

Poles

Following is the requested information for the cost of installing a 40-foot pole:

	<b>M A T E R I A L</b>		<b>L A B O R</b>		<b>T O T A L</b>
<b>A L</b>	\$ 254.75	\$	160.61	\$	415.36
<b>FL</b>	\$ 213.82	\$	196.64	\$	410.46
<b>GA</b>	\$ 210.05	\$	176.92	\$	386.97
<b>KY</b>	\$ 247.82	\$	172.31	\$	420.13
<b>LA</b>	\$ 204.35	\$	154.18	\$	358.53
<b>MS</b>	\$ 209.56	\$	146.05	\$	355.61
<b>NC</b>	\$ 211.10	\$	165.36	\$	376.46
<b>SC</b>	\$ 233.68	\$	151.76	\$	385.44
<b>TN</b>	\$ 212.73	\$	192.10	\$	404.83

Section 11

Detailed continuing property records

Detailed continuing property records for the items requested is contained in an ASCII formatted file with comma delimiters as file bsdcp.r.csv. A translation table of ECNDR codes is being provided as a sheet in Excel workbook bsdcp.r.xls. This Excel workbook file also contains the same continuing property records data as provided in file bsdcp.r.csv. A paper copy of these files is not being provided since a printout would be approximately 260 pages. This information is considered confidential as noted in the "Designation of Confidential Information" statement.

Section 12

Digital switches

The information regarding digital switches is being provided in an Excel workbook file bsswitch.xls. A paper copy of this file is also being provided, with the file name appearing in the lower right hand corner of each page. This information is considered confidential as noted in the "Designation of Confidential Information" statement.



Section 13

Contracts with switching manufacturers

A paper copy of contracts with switching vendors is being provided. This information is considered confidential as noted in the "Designation of Confidential Information" statement.